October 31, 2002

Asadul H. Chowdhury, Manager, Mining, Geotechnical, and Facility Engineering Center for Nuclear Waste Regulatory Analyses 6220 Culebra Road P.O. Drawer 28510 San Antonio Texas 78228-5166

Subject: Repository Design and Thermal-Mechanical Effects Key Technical Issue

Intermediate Milestone No.20-01402.671.220: Thermal-Mechanical-

Hydrological Coupled Analysis-Progress Report

Dear Dr. Chowdhury,

I have reviewed the Center for Nuclear Waste Regulatory Analyses (CNWRA) Progress Report entitled: "DECOVALEX-III Task 2C Thermal-Mechanical Modeling of the Drift-Scale Heater Test at Yucca Mountain" dated September 26, 2002. The subject report documents the results of the CNWRA Thermal-Mechanical analyses of the U.S. Department of Energy Drift-Scale Heater Test. The results represent the progress to date and are part of the ongoing work intended for presentation and discussion at the next DECOVALEX meetings in December 2002 and January, 2003.

The results presented in the report use the finite difference computer code Fast Lagrangian Analysis of Continua (FLAC). The actual comparison of the predicted values with the measured values is yet to be done. The CNWRA Intermediate Milestone deliverable is accepted with the note that there is an error on page 2-5 of the report in the equations 2-16 and 2-17. I have already discussed this with the primary author of the report and I understand this numerical error does not affect the conclusions presented in the report. I look forward to further discussions on this study with the authors of the report during our upcoming DECOVALEX Task Force meetings at Berkeley and Berlin. If there are any additional comments generated on the subject report by me or others, they will be communicated to you through informal discussions or e-mails. If you have any questions on the contents of this letter, please contact me at (301) 415-6695 or via e-mail (msn1@nrc.gov). No written response to this letter is required and the subject report is considered to fulfill the Center's contractual obligations for this Intermediate Milestone.

Sincerely.

/RA/

Mysore Nataraja, Program Element Manager Division of Waste Management Office of Nuclear Matieral Safety and Safeguards Asadul H. Chowdhury, Manager, Mining, Geotechnical, and Facility Engineering Center for Nuclear Waste Regulatory Analyses 6220 Culebra Road P.O. Drawer 28510 San Antonio Texas 78228-5166

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Mysore Nataraja, Program Element Manager Division of Waste Management

Office of Nuclear Matieral Safety and Safeguards

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